

SEQUENCE LISTING

<110> Yissum Research Development Company of the Hebrew
University of Jerusalem
Ben-Gurion University of the Negev Research and
Development Authority
MANDELBOIM, Ofer
PORGADOR, Angel

<120> PEPTIDES DERIVED FROM NATURAL CYTOTOXICITY RECEPTORS AND METHODS
OF USE THEREOF

<130> NAP/003/PCT

<140> PCT/IL2004

<141> 2004-11-24

<150> US 60/524,648

<151> 2003-11-25

<160> 30

<170> PatentIn version 3.3

<210> 1

<211> 23

<212> PRT

<213> Homo sapiens

<220>

<221> PEPTIDE

<222> (1)..(23)

<223> amino acid residues 153-175 of human NKp46

<400> 1

Phe Leu Leu Leu Lys Glu Gly Arg Ser Ser His Val Gln Arg Gly Tyr
1 5 10 15

Gly Lys Val Gln Ala Glu Phe
20

<210> 2

<211> 20

<212> PRT

<213> homo sapiens

<220>

<221> PEPTIDE

<222> (1)..(20)

<223> aa 153-172 of NKp46 (SEQ ID NO:5 herein)

<220>

<221> PEPTIDE

<222> (1)..(20)

<223> aa residues 153-172 of human NKp46 (SEQ ID NO:5 herein)

<400> 2

Phe Leu Leu Leu Lys Glu Gly Arg Ser Ser His Val Gln Arg Gly Tyr
1 5 10 15

Gly Lys Val Gln

20

<210> 3
<211> 28
<212> PRT
<213> homo sapiens

<220>
<221> PEPTIDE
<222> (1)..(28)
<223> derived from NKp30 amino acids 56-83

<220>
<221> PEPTIDE
<222> (1)..(28)
<223> amino acid residues 57-84 derived from human NKp30

<400> 3

Arg Asp Glu Val Val Pro Gly Lys Glu Val Arg Asn Gly Thr Pro Glu
1 5 10 15

Phe Arg Gly Arg Leu Ala Pro Leu Ala Ser Ser Arg
20 25

<210> 4
<211> 20
<212> PRT
<213> homo sapiens

<220>
<221> PEPTIDE
<222> (1)..(20)
<223> corresponds to amino acids 56-75 of NKp30

<220>
<221> PEPTIDE
<222> (1)..(20)
<223> amino acids residues 57-76 of human NKp30

<400> 4

Arg Asp Glu Val Val Pro Gly Lys Glu Val Arg Asn Gly Thr Pro Glu
1 5 10 15

Phe Arg Gly Arg
20

<210> 5
<211> 24
<212> PRT
<213> homo sapiens

<220>
<221> PEPTIDE
<222> (1)..(24)
<223> amino acids 61-80 of NKp44

<220>
<221> PEPTIDE

<222> (1)..(24)

<223> amino acid residues 51-74 of human Nkp44

<400> 5

Lys Lys Gly Trp Cys Lys Glu Ala Ser Ala Leu Val Cys Ile Arg Leu
 1 5 10 15

Val Thr Ser Ser Lys Pro Arg Thr
 20

<210> 6

<211> 304

<212> PRT

<213> homo sapiens

<300>

<308> NCBI/CAA04714

<309> 1998-09-22

<313> (1)..(304)

<400> 6

Met Ser Ser Thr Leu Pro Ala Leu Leu Cys Val Gly Leu Cys Leu Ser
 1 5 10 15

Gln Arg Ile Ser Ala Gln Gln Gln Thr Leu Pro Lys Pro Phe Ile Trp
 20 25 30

Ala Glu Pro His Phe Met Val Pro Lys Glu Lys Gln Val Thr Ile Cys
 35 40 45

Cys Gln Gly Asn Tyr Gly Ala Val Glu Tyr Gln Leu His Phe Glu Gly
 50 55 60

Ser Leu Phe Ala Val Asp Arg Pro Lys Pro Pro Glu Arg Ile Asn Lys
 65 70 75 80

Val Lys Phe Tyr Ile Pro Asp Met Asn Ser Arg Met Ala Gly Gln Tyr
 85 90 95

Ser Cys Ile Tyr Arg Val Gly Glu Leu Trp Ser Glu Pro Ser Asn Leu
 100 105 110

Leu Asp Leu Val Val Thr Glu Met Tyr Asp Thr Pro Thr Leu Ser Val
 115 120 125

His Pro Gly Pro Glu Val Ile Ser Gly Glu Lys Val Thr Phe Tyr Cys
 130 135 140

Arg Leu Asp Thr Ala Thr Ser Met Phe Leu Leu Leu Lys Glu Gly Arg
 145 150 155 160

Ser Ser His Val Gln Arg Gly Tyr Gly Lys Val Gln Ala Glu Phe Pro
 165 170 175

Leu Gly Pro Val Thr Thr Ala His Arg Gly Thr Tyr Arg Cys Phe Gly
180 185 190

Ser Tyr Asn Asn His Ala Trp Ser Phe Pro Ser Glu Pro Val Lys Leu
195 200 205

Leu Val Thr Gly Asp Ile Glu Asn Thr Ser Leu Ala Pro Glu Asp Pro
210 215 220

Thr Phe Pro Ala Asp Thr Trp Gly Thr Tyr Leu Leu Thr Thr Glu Thr
225 230 235 240

Gly Leu Gln Lys Asp His Ala Leu Trp Asp His Thr Ala Gln Asn Leu
245 250 255

Leu Arg Met Gly Leu Ala Phe Leu Val Leu Val Ala Leu Val Trp Phe
260 265 270

Leu Val Glu Asp Trp Leu Ser Arg Lys Arg Thr Arg Glu Arg Ala Ser
275 280 285

Arg Ala Ser Thr Trp Glu Gly Arg Arg Arg Leu Asn Thr Gln Thr Leu
290 295 300

<210> 7
<211> 287
<212> PRT
<213> homo sapiens

<300>
<308> NCBI/CAA06872
<309> 1998-09-22
<313> (1)..(287)

<400> 7

Met Ser Ser Thr Leu Pro Ala Leu Leu Cys Val Gly Leu Cys Leu Ser
1 5 10 15

Gln Arg Ile Ser Ala Gln Gln Gln Thr Leu Pro Lys Pro Phe Ile Trp
20 25 30

Ala Glu Pro His Phe Met Val Pro Lys Glu Lys Gln Val Thr Ile Cys
35 40 45

Cys Gln Gly Asn Tyr Gly Ala Val Glu Tyr Gln Leu His Phe Glu Gly
50 55 60

Ser Leu Phe Ala Val Asp Arg Pro Lys Pro Pro Glu Arg Ile Asn Lys
65 70 75 80

Val Lys Phe Tyr Ile Pro Asp Met Asn Ser Arg Met Ala Gly Gln Tyr
85 90 95

Ser Cys Ile Tyr Arg Val Gly Glu Leu Trp Ser Glu Pro Ser Asn Leu
100 105 110

Leu Asp Leu Val Val Thr Glu Met Tyr Asp Thr Pro Thr Leu Ser Val
115 120 125

His Pro Gly Pro Glu Val Ile Ser Gly Glu Lys Val Thr Phe Tyr Cys
130 135 140

Arg Leu Asp Thr Ala Thr Ser Met Phe Leu Leu Leu Lys Glu Gly Arg
145 150 155 160

Ser Ser His Val Gln Arg Gly Tyr Gly Lys Val Gln Ala Glu Phe Pro
165 170 175

Leu Gly Pro Val Thr Thr Ala His Arg Gly Thr Tyr Arg Cys Phe Gly
180 185 190

Ser Tyr Asn Asn His Ala Trp Ser Phe Pro Ser Glu Pro Val Lys Leu
195 200 205

Leu Val Thr Gly Asp Ile Glu Asn Thr Ser Leu Ala Pro Glu Asp Pro
210 215 220

Thr Phe Pro Asp His Ala Leu Trp Asp His Thr Ala Gln Asn Leu Leu
225 230 235 240

Arg Met Gly Leu Ala Phe Leu Val Leu Val Ala Leu Val Trp Phe Leu
245 250 255

Val Glu Asp Trp Leu Ser Arg Lys Arg Thr Arg Glu Arg Ala Ser Arg
260 265 270

Ala Ser Thr Trp Glu Gly Arg Arg Arg Leu Asn Thr Gln Thr Leu
275 280 285

<210> 8
<211> 209
<212> PRT
<213> homo sapiens

<300>
<308> NCBI/CAA06873
<309> 1998-09-22
<313> (1)..(209)

<400> ..8..

Met Ser Ser Thr Leu Pro Ala Leu Leu Cys Val Gly Leu Cys Leu Ser
1 5 10 15

Gln Arg Ile Ser Ala Gln Gln Gln Met Tyr Asp Thr Pro Thr Leu Ser
20 25 30

Val His Pro Gly Pro Glu Val Ile Ser Gly Glu Lys Val Thr Phe Tyr
 35 40 45
 Cys Arg Leu Asp Thr Ala Thr Ser Met Phe Leu Leu Lys Glu Gly
 50 55 60
 Arg Ser Ser His Val Gln Arg Gly Tyr Gly Lys Val Gln Ala Glu Phe
 65 70 75 80
 Pro Leu Gly Pro Val Thr Thr Ala His Arg Gly Thr Tyr Arg Cys Phe
 85 90 95
 Gly Ser Tyr Asn Asn His Ala Trp Ser Phe Pro Ser Glu Pro Val Lys
 100 105 110
 Leu Leu Val Thr Gly Asp Ile Glu Asn Thr Ser Leu Ala Pro Glu Asp
 115 120 125
 Pro Thr Phe Pro Ala Asp Thr Trp Gly Thr Tyr Leu Leu Thr Thr Glu
 130 135 140
 Thr Gly Leu Gln Lys Asp His Ala Leu Trp Asp His Thr Ala Gln Asn
 145 150 155 160
 Leu Leu Arg Met Gly Leu Ala Phe Leu Val Leu Val Ala Leu Val Trp
 165 170 175
 Phe Leu Val Glu Asp Trp Leu Ser Arg Lys Arg Thr Arg Glu Arg Ala
 180 185 190
 Ser Arg Ala Ser Thr Trp Glu Gly Arg Arg Arg Leu Asn Thr Gln Thr
 195 200 205
 Leu

<210> 9
 <211> 192
 <212> PRT
 <213> homo sapiens

<300>
 <308> NCBI/CAA06874
 <309> 1998-09-22
 <313> (1)..(192)

<400> 9

Met Ser Ser Thr Leu Pro Ala Leu Leu Cys Val Gly Leu Cys Leu Ser
 1 5 10 15
 Gln Arg Ile Ser Ala Gln Gln Gln Met Tyr Asp Thr Pro Thr Leu Ser
 20 25 30

Val His Pro Gly Pro Glu Val Ile Ser Gly Glu Lys Val Thr Phe Tyr
35 40 45

Cys Arg Leu Asp Thr Ala Thr Ser Met Phe Leu Leu Lys Glu Gly
50 55 60

Arg Ser Ser His Val Gln Arg Gly Tyr Gly Lys Val Gln Ala Glu Phe
65 70 75 80

Pro Leu Gly Pro Val Thr Thr Ala His Arg Gly Thr Tyr Arg Cys Phe
85 90 95

Gly Ser Tyr Asn Asn His Ala Trp Ser Phe Pro Ser Glu Pro Val Lys
100 105 110

Leu Leu Val Thr Gly Asp Ile Glu Asn Thr Ser Leu Ala Pro Glu Asp
115 120 125

Pro Thr Phe Pro Asp His Ala Leu Trp Asp His Thr Ala Gln Asn Leu
130 135 140

Leu Arg Met Gly Leu Ala Phe Leu Val Leu Val Ala Leu Val Trp Phe
145 150 155 160

Leu Val Glu Asp Trp Leu Ser Arg Lys Arg Thr Arg Glu Arg Ala Ser
165 170 175

Arg Ala Ser Thr Trp Glu Gly Arg Arg Arg Leu Asn Thr Gln Thr Leu
180 185 190

<210> 10
<211> 488
<212> PRT
<213> artificial

<220>
<223> conjugate of leader peptide, D1 and D2 domains of NKp46 with Fc domain

<400> 10

Met Ser Ser Thr Leu Pro Ala Leu Leu Cys Val Gly Leu Cys Leu Ser
1 5 10 15

Gln Arg Ile Ser Ala Gln Gln Gln Thr Leu Pro Lys Pro Phe Ile Trp
20 25 30

Ala Glu Pro His Phe Met Val Pro Lys Glu Lys Gln Val Thr Ile Cys
35 40 45

Cys Gln Gly Asn Tyr Gly Ala Val Glu Tyr Gln Leu His Phe Glu Gly
50 55 60

Ser Leu Phe Ala Val Asp Arg Pro Lys Pro Pro Glu Arg Ile Asn Lys
 65 70 75 80
 Val Lys Phe Tyr Ile Pro Asp Met Asn Ser Arg Met Ala Gly Gln Tyr
 85 90 95
 Ser Cys Ile Tyr Arg Val Gly Glu Leu Trp Ser Glu Pro Ser Asn Leu
 100 105 110
 Leu Asp Leu Val Val Thr Glu Met Tyr Asp Thr Pro Thr Leu Ser Val
 115 120 125
 His Pro Gly Pro Glu Val Ile Ser Gly Glu Lys Val Thr Phe Tyr Cys
 130 135 140
 Arg Leu Asp Thr Ala Thr Ser Met Phe Leu Leu Leu Lys Glu Gly Arg
 145 150 155 160
 Ser Ser His Val Gln Arg Gly Tyr Gly Lys Val Gln Ala Glu Phe Pro
 165 170 175
 Leu Gly Pro Val Thr Thr Ala His Arg Gly Thr Tyr Arg Cys Phe Gly
 180 185 190
 Ser Tyr Asn Asn His Ala Trp Ser Phe Pro Ser Glu Pro Val Lys Leu
 195 200 205
 Leu Val Thr Gly Asp Ile Glu Asn Thr Ser Leu Ala Pro Glu Asp Pro
 210 215 220
 Thr Phe Pro Ala Asp Thr Trp Gly Thr Tyr Leu Leu Thr Thr Glu Thr
 225 230 235 240
 Gly Leu Gln Lys Asp His Ala Leu Trp Asp His Thr Ala Gln Asp Pro
 245 250 255
 Glu Pro Lys Ser Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
 260 265 270
 Pro Glu Phe Glu Gly Ala Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
 275 280 285
 Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
 290 295 300
 Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
 305 310 315 320
 Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
 325 330 335

Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
 340 345 350

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
 355 360 365

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
 370 375 380

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr
 385 390 395 400

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
 405 410 415

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
 420 425 430

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
 435 440 445

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
 450 455 460

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
 465 470 475 480

Ser Leu Ser Leu Ser Pro Gly Lys
 485

<210> 11
 <211> 364
 <212> PRT
 <213> artificial

<220>
 <223> conjugate of CD5 leader peptide and D1 of Nkp46 with Fc domain
 <400> 11

Met Gly Met Pro Met Gly Ser Leu Gln Pro Leu Ala Thr Leu Tyr Leu
 1 5 10 15

Leu Gly Met Leu Val Ala Ser Cys Leu Gly Arg Leu Arg Val Pro Gln
 20 25 30

Gln Gln Thr Leu Pro Lys Pro Phe Ile Trp Ala Glu Pro His Phe Met
 35 40 45

Val Pro Lys Glu Lys Gln Val Thr Ile Cys Cys Gln Gly Asn Tyr Gly
 50 55 60

Ala Val Glu Tyr Gln Leu His Phe Glu Gly Ser Leu Phe Ala Val Asp
 65 70 75 80

Page 10

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 355 360

<210> 12
 <211> 393
 <212> PRT
 <213> artificial

<220>
 <223> conjugate of CD5 leader peptide and D2 domain of NKp46 with Fc domain

<400> 12

Met Gly Met Pro Met Gly Ser Leu Gln Pro Leu Ala Thr Leu Tyr Leu
 1 5 10 15

Leu Gly Met Leu Val Ala Ser Cys Leu Gly Arg Leu Arg Val Pro Tyr
 20 25 30

Asp Thr Pro Thr Leu Ser Val His Pro Gly Pro Glu Val Ile Ser Gly
 35 40 45

Glu Lys Val Thr Phe Tyr Cys Arg Leu Asp Thr Ala Thr Ser Met Phe
 50 55 60

Leu Leu Leu Lys Glu Gly Arg Ser Ser His Val Gln Arg Gly Tyr Gly
 65 70 75 80

Lys Val Gln Ala Glu Phe Pro Leu Gly Pro Val Thr Thr Ala His Arg
 85 90 95

Gly Thr Tyr Arg Cys Phe Gly Ser Tyr Asn Asn His Ala Trp Ser Phe
 100 105 110

Pro Ser Glu Pro Val Lys Leu Leu Val Thr Gly Asp Ile Glu Asn Thr
 115 120 125

Ser Leu Ala Pro Glu Asp Pro Thr Phe Pro Asp Thr Trp Gly Thr Tyr
 130 135 140

Leu Leu Thr Thr Glu Thr Gly Leu Gln Lys Asp His Ala Leu Trp Asp
 145 150 155 160

Pro Glu Pro Lys Ser Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro
 165 170 175

Ala Pro Glu Phe Glu Gly Ala Pro Ser Val Phe Leu Phe Pro Pro Lys
 180 185 190

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
 195 200 205

Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
 210 215 220
 Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
 225 230 235 240
 Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
 245 250 255
 Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
 260 265 270
 Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
 275 280 285
 Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu
 290 295 300
 Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
 305 310 315 320
 Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
 325 330 335
 Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu
 340 345 350
 Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
 355 360 365
 Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
 370 375 380
 Lys Ser Leu Ser Leu Ser Pro Gly Lys
 385 390

<210> 13
 <211> 201
 <212> PRT
 <213> homo sapiens

<300>
 <308> NCBI/AAH52582
 <309> 2004-06-30
 <313> (1)..(201)

<400> 13

Met Ala Trp Met Leu Leu Leu Ile Leu Ile Met Val His Pro Gly Ser
 1 5 10 15

Cys Ala Leu Trp Val Ser Gln Pro Pro Glu Ile Arg Thr Leu Glu Gly
 20 25 30

Ser Ser Ala Phe Leu Pro Cys Ser Phe Asn Ala Ser Gln Gly Arg Leu
35 40 45

Ala Ile Gly Ser Val Thr Trp Phe Arg Asp Glu Val Val Pro Gly Lys
50 55 60

Glu Val Arg Asn Gly Thr Pro Glu Phe Arg Gly Arg Leu Ala Pro Leu
65 70 75 80

Ala Ser Ser Arg Phe Leu His Asp His Gln Ala Glu Leu His Ile Arg
85 90 95

Asp Val Arg Gly His Asp Ala Ser Ile Tyr Val Cys Arg Val Glu Val
100 105 110

Leu Gly Leu Gly Val Gly Thr Gly Asn Gly Thr Arg Leu Val Val Glu
115 120 125

Lys Glu His Pro Gln Leu Gly Ala Gly Thr Val Leu Leu Leu Arg Ala
130 135 140

Gly Phe Tyr Ala Val Ser Phe Leu Ser Val Ala Val Gly Ser Thr Val
145 150 155 160

Tyr Tyr Gln Gly Lys Cys Leu Thr Trp Lys Gly Pro Arg Arg Gln Leu
165 170 175

Pro Ala Val Val Pro Ala Pro Leu Pro Pro Pro Cys Gly Ser Ser Ala
180 185 190

His Leu Leu Pro Pro Val Pro Gly Gly
195 200

<210> 14
<211> 382
<212> PRT
<213> artificial

<220>
<223> conjugate of CD5 leader peptide and D (Ig-like)domain of NKp30
with Fc domain

<400> 14

Met Gly Met Pro Met Gly Ser Leu Gln Pro Leu Ala Thr Leu Tyr Leu
1 5 10 15

Leu Gly Met Leu Val Ala Ser Cys Leu Gly Arg Leu Arg Val Pro Leu
20 25 30

Trp Val Ser Gln Pro Leu Glu Ile Arg Thr Leu Glu Gly Ser Ser Ala
35 40 45

Phe Leu Pro Cys Ser Phe Asn Ala Ser Gln Gly Arg Leu Ala Ile Gly
 50 55 60
 Ser Val Thr Trp Phe Arg Asp Glu Val Val Pro Gly Lys Glu Val Arg
 65 70 75 80
 Asn Gly Thr Pro Glu Phe Arg Gly Arg Leu Ala Pro Leu Ala Ser Ser
 85 90 95
 Arg Phe Leu His Asp His Gln Ala Glu Leu His Ile Arg Asp Val Arg
 100 105 110
 Gly His Asp Ala Ser Ile Tyr Val Cys Arg Val Glu Val Leu Gly Leu
 115 120 125
 Gly Val Gly Thr Gly Asn Gly Thr Arg Leu Val Val Glu Lys Glu His
 130 135 140
 Pro Gln Leu Gly Asp Pro Glu Pro Lys Ser Ser Asp Lys Thr His Thr
 145 150 155 160
 Cys Pro Pro Cys Pro Ala Pro Glu Phe Glu Gly Ala Pro Ser Val Phe
 165 170 175
 Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
 180 185 190
 Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
 195 200 205
 Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
 210 215 220
 Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val
 225 230 235 240
 Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
 245 250 255
 Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser
 260 265 270
 Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro
 275 280 285
 Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val
 290 295 300
 Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
 305 310 315 320

Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp
325 330 335

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
340 345 350

Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His
355 360 365

Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
370 375 380

<210> 15
<211> 276
<212> PRT
<213> homo sapiens

<300>
<308> NCBI/CAB39168
<309> 1999-03-15
<313> (1)..(276)

<400> 15

Met Ala Trp Arg Ala Leu His Pro Leu Leu Leu Leu Leu Leu Phe
1 5 10 15

Pro Gly Ser Gln Ala Gln Ser Lys Ala Gln Val Leu Gln Ser Val Ala
20 25 30

Gly Gln Thr Leu Thr Val Arg Cys Gln Tyr Pro Pro Thr Gly Ser Leu
35 40 45

Tyr Glu Lys Lys Gly Trp Cys Lys Glu Ala Ser Ala Leu Val Cys Ile
50 55 60

Arg Leu Val Thr Ser Ser Lys Pro Arg Thr Met Ala Trp Thr Ser Arg
65 70 75 80

Phe Thr Ile Trp Asp Asp Pro Asp Ala Gly Phe Phe Thr Val Thr Met
85 90 95

Thr Asp Leu Arg Glu Glu Asp Ser Gly His Tyr Trp Cys Arg Ile Tyr
100 105 110

Arg Pro Ser Asp Asn Ser Val Ser Lys Ser Val Arg Phe Tyr Leu Val
115 120 125

Val Ser Pro Ala Ser Ala Ser Thr Gln Thr Pro Trp Thr Pro Arg Asp
130 135 140

Leu Val Ser Ser Gln Thr Gln Thr Gln Ser Cys Val Pro Pro Thr Ala
145 150 155 160

Gly Ala Arg Gln Ala Pro Glu Ser Pro Ser Thr Ile Pro Val Pro Ser
 165 170 175
 Gln Pro Gln Asn Ser Thr Leu Arg Pro Gly Pro Ala Ala Pro Ile Ala
 180 185 190
 Leu Val Pro Val Phe Cys Gly Leu Leu Val Ala Lys Ser Leu Val Leu
 195 200 205
 Ser Ala Leu Leu Val Trp Trp Gly Asp Ile Trp Trp Lys Thr Val Met
 210 215 220
 Glu Leu Arg Ser Leu Asp Thr Gln Lys Ala Thr Cys His Leu Gln Gln
 225 230 235 240
 Val Thr Asp Leu Pro Trp Thr Ser Val Ser Ser Pro Val Glu Arg Glu
 245 250 255
 Ile Leu Tyr His Thr Val Ala Arg Thr Lys Ile Ser Asp Asp Asp Asp
 260 265 270
 Glu His Thr Leu
 275

<210> 16
 <211> 434
 <212> PRT
 <213> artificial

<220>
 <223> conjugate of leader peptide, DS and DL domains of NKp44 with Fc domain

<400> 16

Met Gly Met Pro Met Gly Ser Leu Gln Pro Leu Ala Thr Leu Tyr Leu
 1 5 10 15
 Leu Gly Met Leu Val Ala Ser Cys Leu Gly Arg Leu Arg Val Pro Gln
 20 25 30
 Ser Lys Ala Gln Val Leu Gln Ser Val Ala Gly Gln Thr Leu Thr Val
 35 40 45
 Arg Cys Gln Tyr Pro Pro Thr Gly Ser Leu Tyr Glu Lys Lys Gly Trp
 50 55 60
 Cys Lys Glu Ala Ser Ala Leu Val Cys Ile Arg Leu Val Thr Ser Ser
 65 70 75 80
 Lys Pro Arg Thr Val Ala Trp Thr Ser Arg Phe Thr Ile Trp Asp Asp
 85 90 95
 Pro Asp Ala Gly Phe Phe Thr Val Thr Met Thr Asp Leu Arg Glu Glu
 Page 16

100					105					110					
Asp	Ser	Gly	His	Tyr	Trp	Cys	Arg	Ile	Tyr	Arg	Pro	Ser	Asp	Asn	Ser
		115					120					125			
Val	Ser	Lys	Ser	Val	Arg	Phe	Tyr	Leu	Val	Val	Ser	Pro	Ala	Ser	Ala
	130					135					140				
Ser	Thr	Gln	Thr	Ser	Trp	Thr	Pro	Arg	Asp	Leu	Val	Ser	Ser	Gln	Thr
145					150					155					160
Gln	Thr	Gln	Ser	Cys	Val	Pro	Pro	Thr	Ala	Gly	Ala	Arg	Gln	Ala	Pro
				165					170					175	
Glu	Ser	Pro	Ser	Thr	Ile	Pro	Val	Pro	Ser	Gln	Pro	Gln	Asn	Ser	Thr
			180					185					190		
Leu	Arg	Pro	Gly	Pro	Ala	Ala	Pro	Asp	Pro	Glu	Pro	Lys	Ser	Ser	Asp
		195					200					205			
Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Phe	Glu	Gly	Ala
	210					215					220				
Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile
225					230					235					240
Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	His	Glu
				245					250					255	
Asp	Pro	Glu	Val	Lys	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His
			260					265					270		
Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Tyr	Asn	Ser	Thr	Tyr	Arg
		275					280					285			
Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys
	290					295					300				
Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro	Ala	Pro	Ile	Glu
305					310					315					320
Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr
				325					330					335	
Thr	Leu	Pro	Pro	Ser	Arg	Asp	Glu	Leu	Thr	Lys	Asn	Gln	Val	Ser	Leu
			340					345					350		
Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp
		355					360					365			
Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Val

370

375

380

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
 385 390 395 400

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
 405 410 415

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
 420 425 430

Gly Lys

<210> 17
 <211> 326
 <212> PRT
 <213> artificial

<220>
 <223> conjugate of CD5 leader peptide and DS domain of NKP44 with Fc domain

<400> 17

Met Gly Met Pro Met Gly Ser Leu Gln Pro Leu Ala Thr Leu Tyr Leu
 1 5 10 15

Leu Gly Met Leu Val Ala Ser Cys Leu Gly Arg Leu Arg Val Pro Ser
 20 25 30

Pro Ala Ser Ala Ser Thr Gln Thr Ser Trp Thr Pro Arg Asp Leu Val
 35 40 45

Ser Ser Gln Thr Gln Thr Gln Ser Cys Val Pro Pro Thr Ala Gly Ala
 50 55 60

Arg Gln Ala Pro Glu Ser Pro Ser Thr Ile Pro Val Pro Ser Gln Pro
 65 70 75 80

Gln Asn Ser Thr Leu Arg Pro Gly Pro Ala Ala Pro Asp Pro Glu Pro
 85 90 95

Lys Ser Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu
 100 105 110

Phe Glu Gly Ala Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
 115 120 125

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
 130 135 140

Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly
 145 150 155 160

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn
 165 170 175
 Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp
 180 185 190
 Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro
 195 200 205
 Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu
 210 215 220
 Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn
 225 230 235 240
 Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
 245 250 255
 Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
 260 265 270
 Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
 275 280 285
 Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
 290 295 300
 Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
 305 310 315 320
 Ser Leu Ser Pro Gly Lys
 325

<210> 18
 <211> 376
 <212> PRT
 <213> artificial

<220>
 <223> conjugate of leader peptide, and DL domain of Nkp44 with Fc domain
 <400> 18

Met Gly Met Pro Met Gly Ser Phe Gln Pro Leu Ala Thr Leu Tyr Leu
 1 5 10 15
 Leu Gly Met Leu Val Ala Ser Cys Leu Gly Arg Leu Arg Val Pro Gln
 20 25 30
 Ser Lys Ala Gln Val Leu Gln Ser Val Ala Gly Gln Thr Leu Thr Val
 35 40 45

Arg Cys Gln Tyr Pro Pro Thr Gly Ser Leu Tyr Glu Lys Lys Gly Trp
 50 55 60
 Cys Lys Glu Ala Ser Ala Leu Val Cys Ile Arg Leu Val Thr Ser Ser
 65 70 75 80
 Lys Pro Arg Thr Val Ala Trp Thr Ser Arg Phe Thr Ile Trp Asp Asp
 85 90 95
 Pro Asp Ala Gly Phe Phe Thr Val Thr Met Thr Asp Leu Arg Glu Glu
 100 105 110
 Asp Ser Gly His Tyr Trp Cys Arg Ile Tyr Arg Pro Ser Asp Asn Ser
 115 120 125
 Val Ser Lys Ser Val Arg Phe Tyr Leu Val Val Ser Pro Ala Asp Pro
 130 135 140
 Glu Pro Lys Ser Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
 145 150 155 160
 Pro Glu Phe Glu Gly Ala Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
 165 170 175
 Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
 180 185 190
 Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
 195 200 205
 Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
 210 215 220
 Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
 225 230 235 240
 Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
 245 250 255
 Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
 260 265 270
 Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr
 275 280 285
 Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
 290 295 300
 Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
 305 310 315 320

<220>
<223> DNA sequence of conjugate of leader peptide, D1 AND D2 domains of NKp46 with Fc domain (SEQ ID NO:9)

```

<400> 20
tccccactgc tcagcactta ggccggcaga atctgagcga tgtcttcac actccctgcc 60
ctgctctgcg tcgggctgtg tctgagtcag aggatcagcg cccagcagca gactctccca 120
aaaccgttca tctgggccga gccccatttc atggttccaa aggaaaagca agtgaccatc 180
tggttgccagg gaaattatgg ggctgttgaa taccagctgc actttgaagg aagccttttt 240
gccgtggaca gacaaaacc ccctgagcgg attaacaaag tcaaattcta catcccggac 300
atgaactccc gcatggcagg gcaatacagc tgcattctatc gggttgggga gctctggtca 360
gagcccagca acttgctgga tctggtggtg acagaaatgt atgacacacc caccctctcg 420
gttcatcctg gacccgaagt gatctcggga gagaagggtg ctttctactg ccgtctagac 480
actgcaaca gcatgttctt actgctcaag gaggaagat ccagccacgt acagcgcgga 540
tacgggaagg tccaggcgga gttccccctg ggccctgtga ccacagccca ccgagggaca 600
taccgatgtt ttggctccta taacaaccat gcctgggtctt tccccagtga gccagtgaag 660
ctcctggtca caggcgacat tgagaacacc agccttgac ctgaagacc cacctttcct 720
gcagacactt ggggcaccta ctttttaacc acagagacgg gactccagaa agaccatgcc 780
ctctgggatc acactgccca ggatccggag cccaaatctt ctgacaaaac tcacacatgc 840
ccaccgtgcc cagcacctga attcgagggt gcaccgtcag tcttctctt cccccaaaa 900
cccaaggaca ccctcatgat ctcccggacc cctgagggtca catgctggtt ggtggacgtg 960
agccacgaag accctgaggt caagttcaac tggtagctgg acggcgtgga ggtgcataat 1020
gccaagacaa agccgcggga ggagcagtag aacagcacgt accgtgtggt cagcgtcctc 1080
accgtcctgc accaggactg gctgaatggc aaggagtaca agtgcaaggt ctccaacaaa 1140
gccctcccag ccccatcgga gaaaaccatc tccaaagcca aagggcagcc ccgagagcca 1200
cagggtgtaca ccctgcccc atcccgggat gagctgacca agaaccaggt cagcctgacc 1260
tgcctggtca aaggcttcta tcccagcgac atcgccgtgg agtgggagag caatgggcag 1320
ccggagaaca actacaagac cagcctccc gtgctggact ccgacggctc cttcttctc 1380
tacagcaagc tcaccgtgga caagagcagg tggcagcagg ggaacgtctt ctcattgctc 1440
gtgatgcatg aggctctgca caaccactac acgcagaaga gcctctccct gtctccgggt 1500
aatga 1506

```

```

<210> 21
<211> 1110
<212> DNA
<213> artificial

```

```

<220>
<223> DNA encoding conjugate of CD5 leader peptide and D1 domain of
      NKP46 with Fc domain (SEQ ID NO:10)

```

```

<400> 21
aagcttgccg ccaccatggg aatgcccattg gggctctctgc aaccgctggc caccttgtag 60
ctgctgggga tgctggctgc ttctgcctc ggacgggtca gggtagccca gcagcagact 120

```

```

ctcccaaaac cgttcatctg ggccgagccc catttcatgg ttccaaagga aaagcaagtg 180
accatctgtt gccagggaaa ttatggggct gttgaatacc agctgcactt tgaaggaagc 240
ctttttgccg tggacagacc aaaaccccct gagcggatta acaaagtcaa attctacatc 300
ccggacatga actcccgcac ggaggggcaa tacagctgca tctatcgggt tggggagctc 360
tggtcagagc ccagcaactt gctggatctg gtggtaacag aaatggatcc ggagcccaaa 420
tcttctgaca aaactcacac atgcccaccg tgcccagcac ctgaattcga ggggtgcaccg 480
tcagtcttcc tcttcccccc aaaacccaag gacaccctca tgatctcccg gaccctgag 540
gtcacatgcg tgggtggtgga cgtgagccac gaagaccctg aggtcaagtt caactggtac 600
gtggacggcg tggaggtgca taatgccaaag acaaagccgc gggaggagca gtacaacagc 660
acgtaccgtg tggtcagcgt cctcaccgtc ctgcaccagg actggctgaa tggcaaggag 720
tacaagtgca aggtctccaa caaagccctc ccagcccca tcgagaaaac catctccaaa 780
gccaaagggc agccccgaga gccacaggtg tacaccctgc ccccatcccg ggatgagctg 840
accaagaacc aggtcagcct gacctgcctg gtcaaaggct tctatcccag cgacatcgcc 900
gtggagtggg agagcaatgg gcagccggag aacaactaca agaccacgcc tcccgtgctg 960
gactccgacg gctccttctt cctctacagc aagctcaccg tggacaagag caggtggcag 1020
caggggaacg tcttctcatg ctccgtgatg catgaggctc tgcacaacca ctacacgcag 1080
aagagcctct ccctgtctcc gggtaaataga 1110

```

<210> 22
 <211> 1197
 <212> DNA
 <213> artificial

<220>
 <223> DNA encoding conjugate of leader peptide and D2 domain of NKP46
 with Fc domain (SEQ ID NO:12)

```

<400> 22
aagcttgccg ccaccatggg aatgcccacg gggctctctg aaccgctggc caccttgtag 60
ctgctgggga tgctggctgc ttcctgcctc ggacggctca gggtagccta tgacacaccc 120
accctctcgg ttcacatcctg acccgaggtg atctcgggag agaaggtgac cttctactgc 180
cgtctagaca ctgcaacaag catgttctta ctgctcaagg aggaagatc cagccacgta 240
cagcgcggat acgggaaggc ccaggcggag ttccccctgg gccctgtgac cacagcccac 300
cgagggacat accgatgttt tggctcctat aacaaccatg cctgggtctt cccagtgag 360
ccagtgaagc tcctgggtcac aggcgacatt gagaacacca gccttgacac tgaagacccc 420
acctttcctg acatttgggg cacctacctt ttaaccacag agacgggact ccagaaagac 480
catgccctct gggatccgga gcccaaactt tctgacaaaa ctacacatg cccaccgtgc 540
ccagcacctg aattcgaggg tgcaccgtca gtcttctctt tcccccaaa acccaaggac 600
accctcatga tctcccgagc ccctgaggtc acatgcgtgg tgggtggacgt gagccacgaa 660

```

```

gaccctgagg tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca    720
aagccgcggg aggagcagta caacagcacg taccgtgtgg tcagcgtcct caccgtcctg    780
caccaggact ggctgaatgg caaggagtac aagtgcagg tctccaacaa agccctccca    840
gcccccatcg agaaaaccat ctccaaagcc aaagggcagc cccgagagcc acaggtgtac    900
accctgcccc catcccggga tgagctgacc aagaaccagg tcagcctgac ctgcctggtc    960
aaaggcttct atcccagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac   1020
aactacaaga ccacgcctcc cgtgctggac tccgacggct ctttcttcct ctacagcaag   1080
ctcaccgtgg acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat   1140
gaggctctgc acaaccacta cacgcagaag agcctctccc tgtctccggg taaatga     1197

```

<210> 23
 <211> 606
 <212> DNA
 <213> homo sapiens

<300>
 <308> NCBI/BC052582
 <309> 2004-06-30
 <313> (1)..(606)

```

<400> 23
atggcctgga tgctgttgct catcttgatc atggtccatc caggatcctg tgctctctgg    60
gtgtcccagc cccctgagat tcgtaccctg gaaggatcct ctgccttcct gccctgctcc   120
ttcaatgcca gccaaaggag actggccatt ggctccgtca cgtggttccg agatgagggtg   180
gttcaggga aggaggtgag gaatggaacc ccagagttca ggggccgcct ggccccactt   240
gcttcttccc gtttcctcca tgaccaccag gctgagctgc acatccggga cgtgcgaggc   300
catgacgcca gcatctacgt gtgcagagtg gaggtgctgg gccttggtgt cgggacaggg   360
aatgggactc ggctggtggt ggagaaagaa catcctcagc taggggctgg tacagtcctc   420
ctccttcggg ctggattcta tgctgtcagc tttctctctg tggccgtggg cagcaccgtc   480
tattaccagg gcaaatgtct gacctggaaa ggtccaagaa ggcagctgcc ggctgtggtc   540
ccagcgcccc tcccaccacc atgtgggagc tcagcacatc tgcttcccc agtcccagga   600
ggctga                                           606

```

<210> 24
 <211> 1164
 <212> DNA
 <213> artificial

<220>
 <223> DNA encoding conjugate of CD5 leader peptide, D1 and D2 domains of Nkp30 with Fc domain (SEQ ID NO:13)

```

<400> 24
aagcttgccg ccaccatggg aatgcccatt gggctctctgc aaccgctggc caccttgtag    60
ctgctgggga tgctggctgc ttcctgcctc ggacggctca gggtagccct ctgggtgtcc   120
cagccccttg agattcgtag cctggaaggg tcttctgcct tctgcccctg ctccttcaat   180

```



```

gccagccaag ggagactggc cattggctcc gtcacgtggg tccgagatga ggtggttcca 240
gggaaggagg tgaggaatgg aaccccagag ttcagggggc gcctggcccc acttgcttct 300
tcccgtttcc tccatgacca ccaggctgag ctgcacatcc gggacgtgag aggccatgac 360
gccagcatct acgtgtgcag agtggagggtg ctgggccttg gtgtcgggac agggaaatggg 420
actcggctgg tgggtggagaa agaacatcct cagctagggg atccggagcc caaatcttct 480
gacaaaactc acacatgccc accgtgcca gcacctgaat tcgagggtgc accgtcagtc 540
ttcctcttcc ccccaaaacc caaggacacc ctcatgatct cccggacccc tgaggtcaca 600
tgcgtggtgg tggacgtgag ccacgaagac cctgagggtca agttcaactg gtacgtggac 660
ggcgtggagg tgcataatgc caagacaaag ccgcgggagg agcagtacaa cagcacgtac 720
cgtgtggtca gcgtcctcac cgtcctgcac caggactggc tgaatggcaa ggagtacaag 780
tgcaaggtct ccaacaaagc cctcccagcc cccatcgaga aaaccatctc caaagccaaa 840
gggcagcccc gagagccaca ggtgtacacc ctgcccccat cccgggatga gctgaccaag 900
aaccagggtc gcctgacctg cctgggtcaaa ggcttctatc ccagcgacat cgccgtggag 960
tgggagagca atgggcagcc ggagaacaac tacaagacca cgcttccgt gctggactcc 1020
gacggctcct tcttctcta cagcaagctc accgtggaca agagcagggtg gcagcagggg 1080
aacgtcttct catgtccgt gatgcatgag gctctgcaca accactacac gcagaagagc 1140
ctctccctgt ctccgggtaa atga 1164

```

```

<210> 25
<211> 854
<212> DNA
<213> homo sapiens

```

```

<300>
<308> NCBI/AJ225109
<309> 1999-03-15
<313> (1)..(854)

```

```

<400> 25
atggcctggc gagccctaca cccactgcta ctgctgctgc tgctgttccc aggctctcag 60
gcacaatcca aggctcaggt acttcaaagt gtggcagggc agacgctaac cgtgagatgc 120
cagtacccgc ccacgggcag tctctacgag aagaaaggct ggtgtaagga ggcttcagca 180
cttgtgtgca tcaggtagt caccagctcc aagcccagga cgatggcttg gacctctcga 240
ttcacaatct gggacgacct tgatgctggc ttcttactg tcacatgac tgatctgaga 300
gaggaagact caggacatta ctggtgtaga atctaccgcc cttctgacaa ctctgtctct 360
aagtecgtca gattctatct ggtggtatct ccagcctctg cctccacaca gaccccctgg 420
actccccgcg acctggtctc ttcacagacc cagaccaga gctgtgtgcc tccactgca 480
ggagccagac aagccccctga gtctccatct accatccctg tcccttcaca gccacagaac 540
tccacgctcc gccctggccc tgcagcccc attgccctgg tgctgtgtt ctgtggactc 600
ctcgtagcca agagcctggg gctgtcagcc ctgctcgtct ggtgggggga catatggtgg 660

```

```

aaaaccgtga tggagctcag gagcctggat acccaaaaag ccacctgcca ccttcaacag    720
gtcacggacc ttccctggac ctacgtttcc tcacctgtag agagagaaat attatatcac    780
actgttgcaa ggactaagat aagcgatgat gatgatgaac acactttgtg aataataaaa    840
ttatctgaat gttt                                                    854

```

```

<210> 26
<211> 1320
<212> DNA
<213> artificial

```

```

<220>
<223> DNA encoding conjugate of leader peptide, DS and DL domains of
      Nkp44 with Fc domain (SEQ ID NO:15)

```

```

<400> 26
aagcttgccg ccaccatggg aatgcccattg gggctctctgc aaccgctggc caccttgtac    60
ctgctgggga tgctggctgc ttccctgcctc ggacggctca gggtagccca atccaaggct    120
caggctacttc aaagtgtggc agggcagacg ctaaccgtga gatgccagta cccgcccacg    180
ggcagctctct acgagaagaa aggctgggtgt aaggaggctt cagcacttgt gtgcatcagg    240
ttagtcacca gtcccaagcc caggacgggtg gcttggacct ctcgattcac aatctgggac    300
gaccctgatg ctggcttctt cactgtcacc atgactgatc tgagagagga agactcagga    360
cattactggt gtagaatcta ccgccccttct gacaactctg tctctaagtc cgtcagattc    420
tatctggtgg tatctccagc ctctgcctcc acacagacct cctggactcc ccgcgacctg    480
gtctcttcac agaccagac ccagagctgt gtgcctcca ctgcaggagc cagacaagcc    540
cctgagtctc catctaccat ccctgtccct tcacagccac agaactccac gctccgcctt    600
ggccctgcag ccccggatcc ggagcccaa tcttctgaca aaactcacac atgcccaccg    660
tgcccagcac ctgaattcga ggggtgcaccg tcagtcttcc tcttcccccc aaaacccaag    720
gacaccctca tgatctcccg gacccttgag gtcacatgcg tgggtggtgga cgtgagccac    780
gaagaccctg aggtcaagtt caactggtag gtggacggcg tggaggtgca taatgccaag    840
acaaagccgc gggaggagca gtacaacagc acgtaccgtg tggtcagcgt cctcaccgtc    900
ctgcaccagg actggctgaa tggcaaggag tacaagtgca aggtctccaa caaagccctc    960
ccagccccc tgcagaaaac catctccaaa gccaaagggc agccccgaga gccacagggtg    1020
tacaccctgc ccccatcccc ggatgagctg accaagaacc aggtcagcct gacctgcctg    1080
gtcaaaggct tctatcccag cgacatcgcc gtggagtggg agagcaatgg gcagccggag    1140
aacaactaca agaccacgcc tcccgtgctg gactccgacg gctccttctt cctctacagc    1200
aagctcaccg tggacaagag cagggtggcg caggggaacg tcttctcatg ctccgtgatg    1260
catgaggctc tgcacaacca ctacacgcag aagagcctct ccctgtctcc gggtaaataa    1320

```

```

<210> 27
<211> 996
<212> DNA

```

<213> artificial

<220>

<223> DNA encoding conjugate of CD5 leader peptide and DS domain of NKp44 with Fc domain (SEQ ID NO:16)

<400> 27

```

aagcttgccg ccaccatggg aatgcccattg gggctctctgc aaccgctggc caccttgtac      60
ctgctgggga tgctggctgc ttctgcctc ggacggctca gggtagcctc tccagcctct      120
gcctccacac agacctctg gactccccgc gacctggctc cttcacagac ccagacccag      180
agctgtgtgc ctccactgc aggagccaga caagcccctg agtctccatc taccatccct      240
gtcccttcac agccacagaa ctccacgctc cgccctggcc ctgcagcccc ggatccggag      300
cccaaattctt ctgacaaaac tcacacatgc ccaccgtgcc cagcacctga attcgagggt      360
gcaccgtcag tcttctctt cccccaaaaa cccaaggaca ccctcatgat ctcccggacc      420
cctgagggtca catgcgtggt ggtggacgtg agccacgaag accctgagggt caagttcaac      480
tggtacgtgg acggcgtgga ggtgcataat gccaagacaa agccgcggga ggagcagtac      540
aacagcacgt accgtgtggt cagcgtcctc accgtcctgc accaggactg gctgaatggc      600
aaggagtaca agtgcaagggt ctccaacaaa gccctcccag ccccatcga gaaaaccatc      660
tccaaagcca aagggcagcc ccgagagcca cagggtgtaca ccctgcccc atcccgggat      720
gagctgacca agaaccagggt cagcctgacc tgcctggtca aaggcttcta tcccagcgac      780
atcgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cagcctccc      840
gtgctggact ccgacggctc cttcttctc tacagcaagc tcaccgtgga caagagcagg      900
tggcagcagg ggaacgtctt ctcatgctcc gtgatgcatg aggctctgca caaccactac      960
acgcagaaga gcctctccct gtctccgggt aaatga                                996

```

<210> 28

<211> 1146

<212> DNA

<213> artificial

<220>

<223> DNA encoding conjugate of CD5 leader peptide and DL domain of NKp44 with Fc domain (SEQ ID NO:17)

<400> 28

```

aagcttgccg ccaccatggg aatgcccattg gggctctctgc aaccgctggc caccttgtac      60
ctgctgggga tgctggctgc ttctgcctc ggacggctca gggtagccca atccaaggct      120
caggctacttc aaagtgtggc agggcagacg ctaaccgtga gatgccagta cccgcccacg      180
ggcagtctct acgagaagaa aggctgggtg aaggaggctt cagcacttgt gtgcatcagg      240
ttagtcacca gctccaagcc caggacggtg gcttggacct ctcgattcac aatctgggac      300
gacctgatg ctggcttctt cactgtcacc atgactgac tgagagagga agactcagga      360
cattactggg tagaatcta ccgcccttct gacaactctg tctctaagtc cgtcagattc      420
tatctgggtg tatctccagc ggatccggag cccaaattctt ctgacaaaac tcacacatgc      480

```

```

ccaccgtgcc cagcacctga attcgagggt gcaccgtcag tcttcctctt ccccccaaaa 540
cccaaggaca ccctcatgat ctcccggacc cctgagggtca catgcgtggt ggtggacgtg 600
agccacgaag accctgaggt caagttcaac tgggtacgtg acggcgtgga ggtgcataat 660
gccaagacaa agccgcggga ggagcagtag aacagcacgt accgtgtggt cagcgtcctc 720
accgtcctgc accaggactg gctgaatggc aaggagtaca agtgcaaggt ctccaacaaa 780
gccctcccag ccccatcga gaaaaccatc tccaaagcca aagggcagcc ccgagagcca 840
cagggtgtaca ccctgcccc atcccgggat gagctgacca agaaccaggt cagcctgacc 900
tgcttggtca aaggcttcta tcccagcgac atcgccgtgg agtgggagag caatgggcag 960
ccggagaaca actacaagac cagcctccc gtgctggact ccgacggctc cttcttcctc 1020
tacagcaagc tcaccgtgga caagagcagg tggcagcagg ggaacgtctt ctcagtctcc 1080
gtgatgcatg aggctctgca caaccactac acgcagaaga gcctctccct gtctccgggt 1140
aatga 1146

```

<210> 29
 <211> 159
 <212> PRT
 <213> Artificial

<220>
 <223> conjugate of CD5 leader and mutated Nkp46 (Q4) with Fc of Ig
 <400> 29

Met Gly Met Pro Met Gly Ser Leu Gln Pro Leu Ala Thr Leu Tyr Leu
1 5 10 15

Leu Gly Met Leu Val Ala Ser Cys Leu Gly Arg Leu Arg Val Pro Tyr
20 25 30

Asp Thr Pro Thr Leu Ser Val His Pro Gly Pro Glu Val Ile Ser Gly
35 40 45

Glu Lys Val Thr Phe Tyr Cys Arg Leu Asp Thr Ala Thr Ser Met Phe
50 55 60

Leu Leu Leu Gln Glu Gly Gln Ser Ser Gln Val Gln Gln Gly Tyr Gly
65 70 75 80

Lys Val Gln Ala Glu Phe Pro Leu Gly Pro Val Thr Thr Ala His Arg
85 90 95

Gly Thr Tyr Arg Cys Phe Gly Ser Tyr Asn Asn His Ala Trp Ser Phe
100 105 110

Pro Ser Glu Pro Val Lys Leu Leu Val Thr Gly Asp Ile Glu Asn Thr
115 120 125

Ser Leu Ala Pro Glu Asp Pro Thr Phe Pro Asp Thr Trp Gly Thr Tyr
Page 28

130

135

140

Leu Leu Thr Thr Glu Thr Gly Leu Gln Lys Asp His Ala Leu Trp
 145 150 155

<210> 30
 <211> 159
 <212> PRT
 <213> Artificial

<220>
 <223> conjugate of CD5 leader and mutated NKp46 (Q4T1) with Fc of Ig

<400> 30

Met Gly Met Pro Met Gly Ser Leu Gln Pro Leu Ala Thr Leu Tyr Leu
 1 5 10 15

Leu Gly Met Leu Val Ala Ser Cys Leu Gly Arg Leu Arg Val Pro Tyr
 20 25 30

Asp Thr Pro Thr Leu Ser Val His Pro Gly Pro Glu Val Ile Ser Gly
 35 40 45

Glu Lys Val Thr Phe Tyr Cys Arg Leu Asp Thr Ala Thr Ser Met Phe
 50 55 60

Leu Leu Leu Gln Glu Gly Gln Ser Ser Gln Val Gln Gln Gly Tyr Gly
 65 70 75 80

Thr Val Gln Ala Glu Phe Pro Leu Gly Pro Val Thr Thr Ala His Arg
 85 90 95

Gly Thr Tyr Arg Cys Phe Gly Ser Tyr Asn Asn His Ala Trp Ser Phe
 100 105 110

Pro Ser Glu Pro Val Lys Leu Leu Val Thr Gly Asp Ile Glu Asn Thr
 115 120 125

Ser Leu Ala Pro Glu Asp Pro Thr Phe Pro Asp Thr Trp Gly Thr Tyr
 130 135 140

Leu Leu Thr Thr Glu Thr Gly Leu Gln Lys Asp His Ala Leu Trp
 145 150 155